



**Stottler Henke
Associates, Inc.**

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Founded in 1988, Stottler Henke Associates, Inc. applies artificial intelligence and other advanced software technologies to solve problems that defy solution using traditional approaches. The company delivers intelligent software solutions for education and training, planning and scheduling, knowledge management and discovery, decision support, and software development. Stottler Henke's clients include manufacturers, retailers, educational media companies and government agencies.

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SBIR Investment: \$670K

Acoustic Analysis Intelligent Tutoring System (AAITS)



About the Technology

AAITS is an artificial intelligence tutoring system developed for sonar technicians. It uses a collection of software programs that display “reality created” acoustic signals that trainees can learn to analyze in order to detect and classify undersea and surface targets. AAITS evaluates the student’s interpretation of the acoustic data by comparing the student’s annotations of the acoustic data with those of an expert and experienced sonar technician who created the scenario. It then debriefs the student by pointing out the student’s correct, incorrect, and missing annotations.

Benefits to PEO C4I&Space and other DoD Programs

Learning to detect and classify undersea vessels requires extensive practice analyzing sonar data, as well as individualized feedback and instruction from acoustic analysis experts. In the past, high cost of instructors and the large number of students requiring one-on-one tutoring made it difficult to provide extensive scenario-based training. The lack of real-world learning opportunities was also an impediment. By automating the evaluation of each student’s analysis, AAITS enables instructors in schoolhouse environments to provide students with much more practice-based learning in less time. AAITS can also be used at sea to provide instructor-less training. Trainees can access AAITS through standard PCs. AAITS can present easy and difficult scenarios, so it can be used for initial training of novice sonar technicians as well as for advanced acoustic analysis training.

Why AAITS is a Better Training System

- Uses artificial intelligence to “act” as an instructor, providing automated performance evaluation, feedback, and corrections.
- Can be used with or without live instructors making AAITS a versatile and economic training system.
- Is a far more effective training system than traditional computer-based training systems that merely present information to students and then ask simple, multiple-choice questions.

Military and Commercial Significance

- AAITS is being used at ten Navy training sites today.
- Highly applicable to a wide variety of DoD and commercial training needs.
- Stottler Henke is developing solutions to other Navy training requirements.

